VALLES CALDERA NATIONAL PRESERVE

Amendment to the Environmental Assessment for the Valles Caldera National Preserve Interim Grazing Strategy 2003

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2003

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The Valles Caldera National Preserve (VCNP) is located in the center of the Jemez Mountains located in north-central New Mexico. The purposed inclusion of the Valle Seco and the Valles Rosa into the Valles Caldera National Preserve's Interim Grazing Strategy is located in a non-surveyed legal description at approximately T. 20 N, R. 3 E., sections 22-28, and T. 20 N., R 3 E., sections 19, 20, 29 and 30 New Mexico Meridian (See Attached Map 1-1). Subsequent discussion for these Valles will be referred to as the Cerro Seco Pasture. Pastures and grazing strategies planned in the VCNP Environmental Assessment (EA) for the Interim Grazing Strategy; August 2002 would remain the same with the addition of the Cerro Seco Pasture. The proposed inclusion of the Cerro Seco Pasture provides access, but does not allocate the forage. Assigned use levels for each of the Action Alternatives in the VCNP EA for the Interim Grazing Strategy; August, 2002 would remain the same. This amendment is prepared under the DRAFT National Environmental Policy Act (NEPA) Procedures of the Valles Caldera Trust for the Valles Caldera National Preserve (109.9 b3; page 39).

The purpose of including the Cerro Seco Pasture into the Interim Grazing Strategy is to continue implementation of the Adaptive Management Process by incorporating information, logistics and effects data obtained during implementation and monitoring of the 2002 grazing program into the management strategies for the 2003 grazing season. Other purposes include; 1) meeting the intent of Section 102A of the Valles Caldera Preserve Act (Public Law 106-248 July 25, 2000), 2) reduce the dependence on Mountain Meadow plant communities to support the livestock operation, 3) continue the learning process provided by the Adaptive Management strategy and research, 4) continued development of partnerships with livestock operators, and state, federal, tribal and private entities and 5) providing assistance to area livestock operators by providing forage to supplement their normal ranch operations as well as providing forage during periods of drought, following wild or prescribed fire, and/or other management consideration (VCNP EA for the Interim Grazing Strategy; August, 2002; pg 2).

The Environmental Assessment (EA) for the Interim Grazing Strategy did consider larger portions of the VCNP for grazing outside of the Valles Grande, San Antonio and Toledo, but was not carried into detailed analysis. The Decision Notice for the 2002 and Findings of No Significant Impacts (FONSI) was limited to one grazing season only, requiring a new Decision incorporating knowledge gain during the 2002 grazing season. Part of the August 2002 decision was to monitor the effects of grazing (use levels, livestock management and logistic, elk conflicts, heritage resources) and incorporate what was learned and adapt subsequent year grazing strategies.

Monitoring Results

Forage production data during the 2002 drought was obtained by Production/Utilization Cages monitored by the Joranada Agricultural Research Station, and through post grazing production/utilization analysis (September 2002; O'Haver, Phillips). Previously, there was no forage production data available for the grassland ecosystems within the Preserve during periods of drought. Data was also obtained from range riders on the location of livestock and

duration of use in given geographic areas within the Valle Grande, and qualitative assessment of effects to heritage resources. This information was used in the adaptive management planning for the 2003 Interim Grazing program and the following analysis. In general, forage production during the summer of 2002 ranged from 35-51% of the forage production available during Unfavorable Growing Conditions. Please see Rangeland Analysis for the Interim Grazing Program 2003 (Appendix A) and Baseline Rangeland Plant Community Report (Appendix B), Range Site Monitoring Map (Appendix C), and the Cattle Location and Frequency Map (Appendix D).

AMENDMENT FOR 2003 INTERIM GRAZING PROGRAM

This amendment proposes to incorporate grazing livestock in the Cerro Seco Pasture as part of each Action Alternative described in the VCNP EA for the Interim Grazing Strategy; August, 2002. This proposal does not alter the original Alternatives except for incorporation of the Cerro Seco Pasture. Grazing capacity in the Cerro Seco Pasture was not assigned to support herd numbers, but instead used as a capacity estimate to determine stocking rates to achieve forage utilization of 35% or less, should the Trust decide to use the pasture. Livestock would graze in the Mountain Meadow and Mountain Grassland areas as well as within the Grazeable Woodlands. Livestock may access steeper forest slopes on the steep mountainous ryholite domes; however, these areas are not intended for use and would **not** be actively managed for livestock grazing. Herd management would actively prevent livestock from accessing the steeper forested ryholite domes as a mitigation measure; however, there are not fence lines at present to keep livestock out of those areas. Incidental grazing may occur within forested area, where forage is available (See Pasture Map 1-2).

The grazing capacity for the Cerro Seco Pasture is based on Map Unit 300 series Mountain Valley and Mountain Grassland plant communities. Grazing Capacity is based on 35% use in Mountain Grassland communities and 15% use in Mountain Meadow (riparian) plant communities. Although grazing capacity is calculated for the Cerro Seco Pasture, the forage would not be allocated to support the number of livestock (AUMs), but to provide the Valles Calder Trust with data necessary to determine the numbers and duration livestock could remain in that pasture while meeting forage management objectives (utilization levels of 35% or less). Livestock would not be restricted to the Mountain Valley and Mountain Grassland communities. Grazeable woodlands; although not considered in the capacity determinations, would be available for livestock use.

Grazing Capacities Determination

Grazing capacities is determined, as before, with a conservative approach in allocating current year's forage production to determine Animal Unit Month (AUM) availability within grassland communities (Map Units 300 series) using the following criteria; **1)** An AUM is determined to be one animal (cow/calf pair or equivalent) consuming 30 pounds air-dry forage per day per month, equivalent to 900 pounds air-dry forage per month. **2)** Frequency, duration and magnitude of grazing is designed to minimize root growth stoppage by maintaining harvest below 40% of current year's forage production. **3)** The analysis used **35%** of available forage being allocated towards livestock (900 pounds of forage for livestock consumption) and provides for 1,671 pounds of forage remaining on the site for watershed protection and wildlife (35% ~ 2,571 lbs = AUM demand + watershed protection + wildlife.) **4)** Grazing capacities are obtained by multiplying acres (a), times forage production estimates (2002 collections (b), unfavorable conditions ESD (c), or favorable

conditions ESD (d).) AUM capacities in the Mountain Valleys and Grazeable Woodland sites are a product of the total pounds of available forage per pasture divided by 2,571 pounds. **5)** Availability of AUMs in Alternative 1 is based on 35 % allowable use in Mountain Meadows, Mountain Valleys and Grazeable Woodlands. **6)** AUM capacities under Alternative 2 and 3 is calculated in the same fashion as **(4) above** except allowable use in Mountain Meadow sites is set at 15% and the product is divided by 6,000 pounds. Grazeable Woodlands are not considered in the capacity estimates in Alternative 2 and 3 or within the Cerro Seco Pasture.

Ultimately, the number of livestock grazed during the 2003 season would be based on the Total Assigned AUMs in the selected Alternative, and on site specific Range Readiness Assessments performed in May 2003. The Range Readiness Assessment would be performed via an Interdisciplinary-Interagency Assessment considering which Alternative is selected by the Valles Caldera Trust, winter and spring weather and precipitation, and livestock management logistics.

Actions and Mitigation Measures Common to All Action Alternatives would be same as described in the EA (VCNP EA for the Interim Grazing Strategy; August, 2002; page 32-35) and would be implemented during the 2003 Interim Grazing period. The construction of a brush barrier at the entrance of a rock shelter site, as planned and analyzed, was implemented in 2002. Fence construction, stock tank construction and/or maintenance are not proposed for the 2003 grazing season. Forage use levels for determining available forage in the Mountain Meadow and Mountain Grassland assessed in the Environmental Assessment of the Interim Grazing Strategy for 2002 would be the same, by Alternatives, for the 2003 season.

ALTERNATIVE 1

This alternative was developed with the same emphasis; pasture areas, available use areas and assigned use levels, as in the 2002 Environmental Assessment, on the large valles (Valle Grande, Valle San Antonio and Valle Toledo). Again, use was not assigned for the Jaramillo Creek and Sulfur Canyon pastures, the southwestern portion of the VCNP, slopes greater than 30%, and past timber harvest units (VCNP EA for the Interim Grazing Strategy; August, 2002; page 36-37). ***This Alternative remains the same in all respects as describe in the EA; August 2002 with the exception of including the Cerro Seco Pasture for livestock grazing.***

The available forage (AUMs) in the Cerro Seco Pasture is illustrated in the last row of the table below. Please note; available AUMs in the Cerro Seco Pasture is not assigned to support the herd number, but indicates how much forage is available should the Trust decide to use that Pasture to relieve grazing pressure from other Valles.

Assigned Use

35 % of the total annual forage production within:
- Mountain Grasslands
- Grazeable Woodlands

35% allowable use is assigned to riparian corridors found in
- Mountain Meadows (Riparian Areas)

Table 1-1 Grazing Capacity (AUMs) based on Assigned Use

	Grazeable Acres	2002 Forage Production (average) AUMs	Unfavorable Years Forage Production AUMs	Favorable Years Forage Production AUMs
Total Assigned AUM's	15,668	2,270	6,706	12,913
Cerro Seco Pasture	2,416	454	889	2,140

ALTERNATIVE 2

This alternative was developed with the same emphasis, pasture areas, available use areas and assigned use levels as in the 2002 Environmental Assessment using the three large valles (Valle Grande, Valle San Antonio and Valle Toledo) and with the addition of the Cerro Seco Pasture to support the herd. Use was not assigned for the Jaramillo Creek, Sulfur Canyon pastures, the southwestern portion of the VCNP, slopes greater than 30%, and past timber harvest units (VCNP EA for the Interim Grazing Strategy; August, 2002; page 38-39). ***This Alternative remains the same in all aspects as describe in the EA August 2002 with the exception of including the Cerro Seco Pasture for livestock grazing.***

The available forage (AUMs) in the Cerro Seco Pasture is illustrated in the last row of the table below. Please note; available AUMs in the Cerro Seco Pasture is not assigned to support the herd number, but indicates how much forage is available should the Trust decide to use that Pasture to relieve grazing pressure from other Valles.

Assigned Use

35 % of the total annual forage production within:
- Mountain Grasslands
- Grazeable Woodlands

15% allowable use is assigned to riparian corridors found in
- Mountain Meadows (Riparian Areas)

Table 1-2 Carrying Capacity based on Assigned Use

	Grazeable Acres	2002 Forage Production (average) AUMs	Unfavorable Years Forage Production AUMs	Favorable Years Forage Production AUMs
Total Assigned AUM's	14,227	1,881	4,686	9,573
Cerro Seco Pasture	2,416	454	889	2,140

ALTERNATIVE 3

This alternative was developed with an emphasis on providing the greatest protection of the aquatic resources and water quality, and the greatest flexibility to respond to elk-livestock issues. This alternative places less emphasis on the Cultural issues for those who wish to maximize livestock grazing, and more emphasis on the Cultural interests who wish it is to see the valles absent of livestock. In this alternative any one the large valles (Valle Grande, Valle San Antonio and Valle Toledo) could be vacant of livestock in any given year. Allowing for one of the larger pasture systems to go vacant of livestock, in any given year, provides the greatest flexibility to Valles Caldera Trust to adjust stocking levels and where cattle would graze. It also provides the Valles Caldera Trust the opportunity adjust stocking levels to enable experimental designs that may prove valuable in improving and sustaining ranch operations (VCNP EA for the Interim Grazing Strategy; August, 2002; page 40-42). ***This Alternative remains the same in all respects as describe in the EA; August 2002 with the exception of including the Cerro Seco Pasture for livestock grazing.***

Assigned Use

35 % of the total annual forage production within:
Mountain Grasslands
Grazeable Woodlands

15% allowable use is assigned to riparian corridors found in
Mountain Meadows (Riparian Areas)

The available forage (AUMs) in the Cerro Seco Pasture is illustrated in the last row in each of the tables below. Please note; available AUMs in the Cerro Seco Pasture is not assigned to support the herd number, but indicates how much forage is available should the Trust decide to use that Pasture to relieve grazing pressure from other Valles. The following tables illustrate the carrying capacity for this alternative with different major pasture systems (Valles Grande, San Antonio and Toledo) being rested or vacant of livestock. Grazing in the Cerro Seco Pasture is common to each table and would be available for livestock use with any option to rest the Valle Grande, Valle San Antonio or Valle Toledo.

Table 1-3a Carrying Capacity based on Assigned Use
Toledo Pasture Vacant of Livestock

	Grazeable Acres	2002 Forage Production (average) AUMs	Unfavorable Years Forage Production AUMs	Favorable Years Forage Production AUMs
Total Assigned AUM's	10,565	1,350	3,504	6,824
Cerro Seco Pasture	2,416	454	889	2,140

Table 1-3b Carrying Capacity based on Assigned Use
Valle San Antonio Pasture Vacant of Livestock

	Grazeable Acres	2002 Forage Production (average) AUMs	Unfavorable Years Forage Production AUMs	Favorable Years Forage Production AUMs
Total Assigned AUM's	8,286	1,090	2,749	5,882
Cerro Seco Pasture	2,416	454	889	2,140

Table 1-3c Carrying Capacity based on Assigned Use
Valle Grande Pasture Vacant of Livestock

	Grazeable Acres	2002 Forage Production (average) AUMs	Unfavorable Years Forage Production AUMs	Favorable Years Forage Production AUMs
Total Assigned AUM's	9,603	1,322	3,119	6,440
Cerro Seco Pasture	2,416	454	889	2,140

ALTERNATIVE 4 (No Action Alternative)
Alternative 4 would not re-establish livestock grazing on the VCNP at this time. Boundary fence lines and interior pasture fences would be maintained. Fence lines known to be a hazard to elk movement could be modified by dropping or removing the top wire, and/or removing segments of fence line. The head quarters corral, hay sheds, and pasture fences would be maintained to support 1-5 horses for administration and security use. Corrals outside the headquarters area that normally support a cattle operation would receive minimal maintenance.

ENVIRONMENTAL CONSEQUENCES
The physical and biological resource conditions in the proposed new pasture areas are the same or similar to those analyzed in the EA (VCNP EA for the Interim Grazing Strategy; August, 2002; page 44-65). The new pasture areas are within the Valles Caldera National Preserve. Approximately 2416 acres of Mountain Meadow and Mountain Grassland plant communities were evaluated for carrying capacity based on assigned use of available forage during the drought conditions of 2002, Unfavorable Years Available Forage and Favorable Years Forage. The Cerro Seco Pasture would be used to relieve grazing pressure on Mountain Meadow and Mountain Grassland communities in the Valles San Antonio, Valles Grande and/or the Toledo Pastures should forage availability become limited due to drought,

use by elk and or other resource management considerations including, but not limited to recreational activities, wildfire and/or aesthetics concerns.

The potential effects of implementing the No Action Alternative (Alternative 4) are described in the VCNP EA for the Interim Grazing Strategy; August, 2002; pages 45-65.

Aquatic Habitat
The potential direct, indirect and cumulative effects to aquatic habitat and water quality through implementation of Alternatives 1, 2 or 3 are similar or the same as described in the (VCNP EA for the Interim Grazing Strategy; August, 2002; pages 45-51). With the option of grazing stock in the Cerro Seco Pasture, there is however, less potential to affect the aquatic habitat of the East Fork Jemez due to the reduced reliance on the Valle Grande Pasture.

Perennial streams do not occur within the proposed Cerro Seco Pasture as they do within the Valle San Antonio and Valle Grande; therefore, there is limited possibility to adversely effect water quality directly, indirectly or cumulatively. The Luis and Santa Rosa Creeks, within the Cerro Seco Pasture, are tributary to the San Antonio Creek. The Rito Seco is tributary to the Sulfur Creek that ultimately flows into Redondo Creek.

Elk-Livestock Interactions
The potential direct, indirect and cumulative effects through implementation of Alternatives 1, 2 or 3 on the interactions between elk and livestock could increase by moving livestock into the Cerro Seco. By allowing livestock to graze in both the grassland communities and grazeable woodlands interactions may increase. However, the potential interactions of large herds of elk within the Valle Grande and the Valle Toledo, and livestock would be reduced. A detailed description of effects can be found in the VCNP EA for the Interim Grazing Strategy; August, 2002; pages 51-55. As before, there remains large portions of the Valles Caldera National Preserve absent of stock and outside the Preserve on the greater Jemez Mountain landscape that provide a variety of habitat essential to the Jemez Mountain elk herd.

Socio-Cultural Concerns
The potential direct, indirect and cumulative effects through implementation of Alternatives 1, 2 or 3 would be similar to those as described in the VCNP EA for the Interim Grazing Strategy; August, 2002; pages 59-62. There may be a slight improvement in effects with respect to livestock operators through the continued use of the VCNP to support a livestock operation, and an increased effect to those who do not wish to see livestock on the VCNP. Spiritual and cultural concerns are mitigated through active herd management that minimizes livestock accessing the highest peaks in the Cerro Seco Pasture while leaving large areas within the VCNP void or absent of livestock.

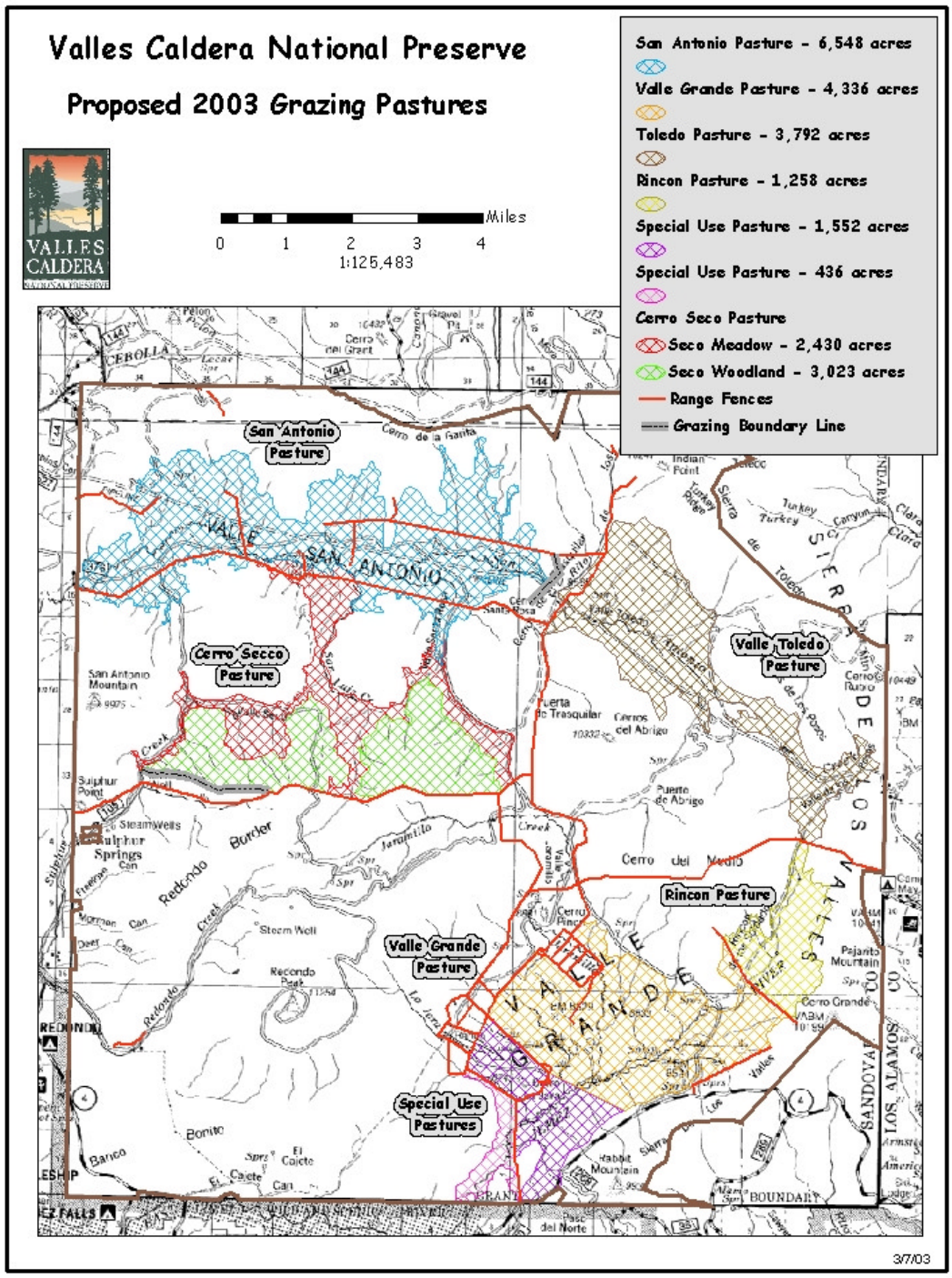
Wildlife
Analysis of wildlife has been completed for the proposed incorporation of the Cerro Seco Pasture. An addendum (March 2003) to the Biological Evaluation (April 2002) has been completed for the proposed amendment to the Environmental Assessment (EA) for the Valles Caldera National Preserve Interim Grazing Strategy. The impacts identified within the Biological Evaluation (April 2002), have not change based and the amended EA, and the determination of a "No Effect" situation for all eight species remains that same (VCNP EA for the Interim Grazing Strategy; August, 2002; pages 55-59).

Heritage Resources
The potential direct, indirect, and cumulative effects through implementation of Alternatives 1, 2 or 3 would be similar to those described in the VCNP EA for the Interim Grazing Strategy, August, 2002; pages 62-65. There is limited Heritage Resources survey data for much of the Cerro Seco Pasture. However, Heritage Resources commonly found within the VCNP (obsidian quarries, lithic scatters and rockshelters) would not be adversely affected by the proposed livestock grazing. There are no known obsidian quarry sites in the Cerro Seco Pasture, nor would any be expected based on the geology of the area. Cumulatively, reduced grazing emphasis on the Valle Grande and/or Valle San Antonio would have a net reduction in the potential to affect heritage resources in those pastures.

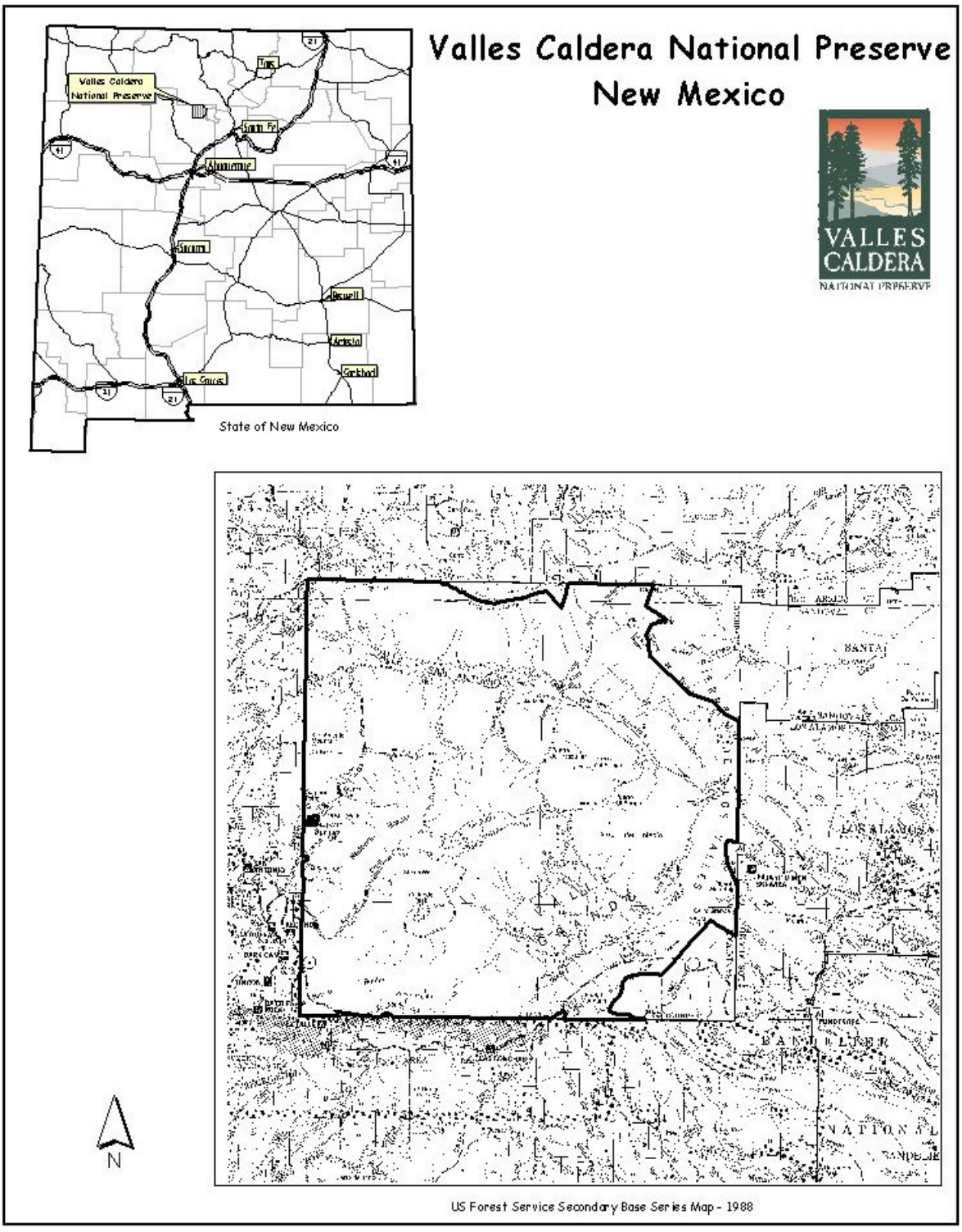
East Fork Jemez Wild and Scenic River Designation
The potential direct, indirect and cumulative effects to the East Fork Jemez Wild and Scenic River Designation through implementation of Alternatives 1, 2 or 3 would be similar or the same as those described in the VCNP EA for the Interim Grazing Strategy; August, 2002; page 65.

Economics
The potential direct, indirect and cumulative effects to the Economics through implementation of Alternatives 1, 2 or 3 would be similar or the same as those described in the VCNP EA for the Interim Grazing Strategy; August, 2002; page 65.

Map 1-1
Location Map of VCNP



Map 1-2
Pasture Location Map



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